

PACIFIC INTERDECADAL VARIABILITY: OBSERVATIONS AND OCEAN MODEL SIMULATIONS

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Analysis of this century's sea surface temperatures over the Pacific Ocean reveals an interdecadal oscillation with a period of 14-17 years. Our results show that the well-known 1976-77 climate regime shift is not unique, but represents one of several phase transitions associated with this interdecadal oscillation, also found around 1957-58, 1941-42 and 1924-25. The striking north-south symmetry across the equator that characterizes the interdecadal oscillation implies strong interactions between tropics and extratropics. A Pacific Ocean general circulation model forced with observed air-sea fluxes during 1945-93 is shown to reproduce many of the observed of this interdecadal oscillation.